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FOOD AS A SOURCE OF ENERGY

Today people are more interested in vitamins and minerals than in calories. But ______________ (Name), ____________ (Title), ________________ (Institution), says that some understanding of calories and of how we get energy from foods is important in planning well-balanced meals.

In thinking about energy foods, nutritionists in the Federal Bureau of Home Economics compare the body with a machine. They explain that anybody who has seen a freight train chugging along the tracks has some idea of how the engine works. We know that a fire is kept burning inside the engine to heat water and make steam. As this steam expands, it is able to push with a powerful force - force that drives the pistons and makes the wheels turn so the engine can pull its load of cars.

And, strangely enough, the human body can do much the same thing. Its fuel is food, not coal. But this food is actually burned inside the body. Although there is no flame or smoke, the fire produces heat. Part of this heat is used to keep the body warm, and part of it is created into work energy.

It is this energy that makes it possible for the lumberman to chop down a tree. The same energy is also needed for the work of the muscles that we seldom think about inside the body -- such as the heart and stomach muscles. Even the lungs, the liver, and the kidneys, as well as the tiny glands and very small organs, need food energy to function properly.

One surprising thing about the human body is the fact that it thriftily stores up lots of the surplus energy as a fat. As long as children

(more)

are growing, it is a desirable health insurance for them to be a few pounds overweight. At this critical and formative period, they are especially likely to undermine their health by starving their bodies. But for grown folk, surplus fat may accumulate as too many extra pounds that are bothersome and may even be dangerous to health.

The foods that yield the energy are the carbohydrates (sugars and starches), proteins, and fats. For a given weight, carbohydrates and proteins yield the same amount of heat or energy in the body. But the fats yield more than twice as much. It also takes longer to digest fats. This gives fats a sort of "staying power," which keeps us from feeling hungry too soon after a meal.

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